U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-258 264

Existing and Proposed Fuel Conversion Facilities Summary

Environmental Protection Agency, Denver, Colo Region VIII

Jul 76

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15. Supplementary Notes

16. Abstracts
This report provides a summary of existing and proposed coal conversion facilities in addition to hydroelectric plants on a state-by-state basis for the six states (Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming) of EPA Region VIII. It identifies the location, facility name, number of units, operating company and other participants, plant capacity, and the fuel type for the various conversion facilities.

17. Key Words and Document Analysis. 17a. Descriptors
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*Thermal power plants,
*Fossil-fuel power plants,
*Electric power plants,
*Hydroelectric power plants,
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Plant location,
Site surveys,
Wyoming,
Colorado,
Montana,
North Dakota,
South Dakota,
Utah,
Diesel electric power generation,
Gas turbine power generation,
Electric power generation,
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Forecasting.

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JULY 1976

PB 258 264

EXISTING AND PROPOSED FUEL CONVERSION FACILITIES SUMMARY

ENVIRONMENTAL PROTECTION AGENCY

ROCKY MOUNTAIN-PRAIRIE REGION

REGION VIII

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SPRINGFIELD, VA. 22161

EXISTING AND PROPOSED

FUEL CONVERSION FACILITIES SUMMARY

U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

JULY 1976

TS - 5

prepared by the

Office of Energy Activities

INTRODUCTION

This publication provides a summary of existing and proposed coal conversion facilities in addition to hydroelectric plants on a state-by-state basis for the six states (Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming) of EPA Region VIII. The criteria generally utilized to identify and select the power plants for inclusion in this report is that used by the Federal Power Commission. Thus those plants of less than 25 MW in a system of less than 150 MW are generally not included.

This report identifies the location, facility name, number of units, operating company and other participants, plant capacity, and the fuel type for the various conversion facilities. A code number has been assigned to each facility to aid in identifying the location of that facility. Figures 15 and 16 show these locations.

Tables 1 and 2 summarize the steam electric generating capacity existing and proposed in the Region. It can be seen that a 226 percent increase in coal conversion facility generating capacity is projected by 1986. Tables 3 through 8 provide individual State breakdowns of this projected capacity. Tables 9 through 15 provide the detailed plant information.

Information was obtained from three principal sources.

1. Western Systems Coordinating Council
   Reply to Federal Power Commission Docket R-362,
   "Reliability and Adequacy of Electric Service"
   April 1, 1976

2. Mid-Continent Area Reliability Coordination Agreement,
   Reply to Federal Power Commission Docket R-362,
   April 1, 1976

3. Personal communication with various State and local
   officials

It is hoped that this publication will be used to identify areas where future energy conversion development is likely to occur and thus identify those areas where near term and sound environmental planning may be needed.

Please direct any inquiries regarding the data obtained in this publication to Mr. Gary Parker or Mr. Terry Thoem. (303-837-3073)

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Table I

Power Summary

REGION VIII POWER SUMMARY June 1976

0 Steam Electric Generating Capacity, Megawatts

State	Existing	Proposed to 1986	Total
Colorado	2782	4666	7448
Montana	637	1730	2367
North Dakota	1235	3133	4368
South Dakota	655	-84	571
Utah	939	6775	7714
Wyoming	2538	3630	6168
Total Region VIII	8786	19850	28636

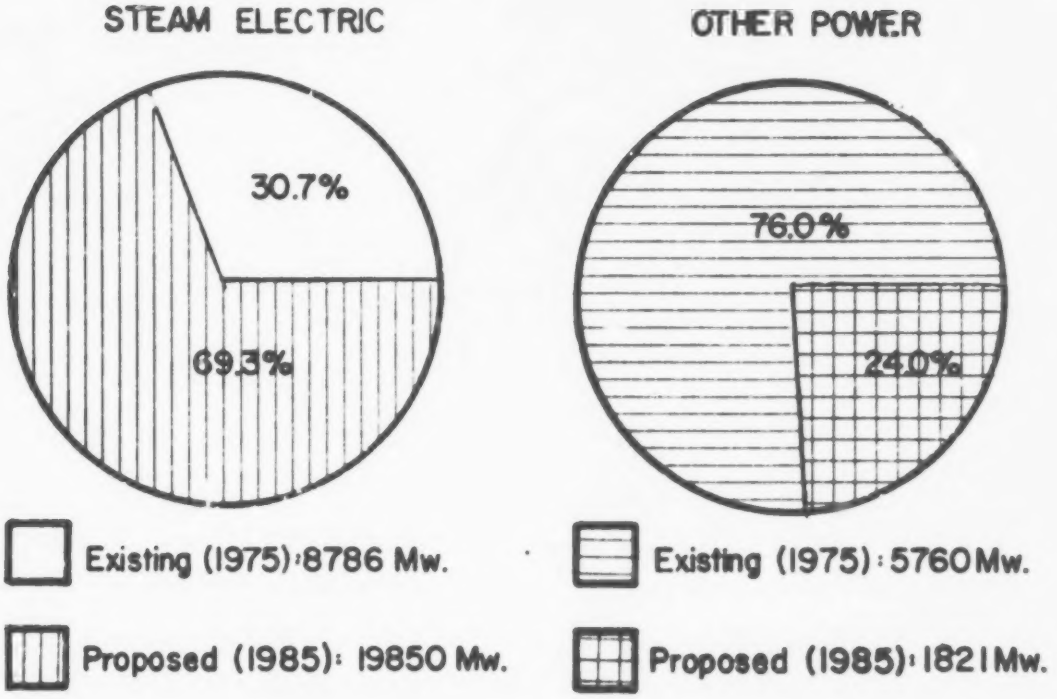
0 Generating Capacity, Megawatts, Other Than Steam Electric

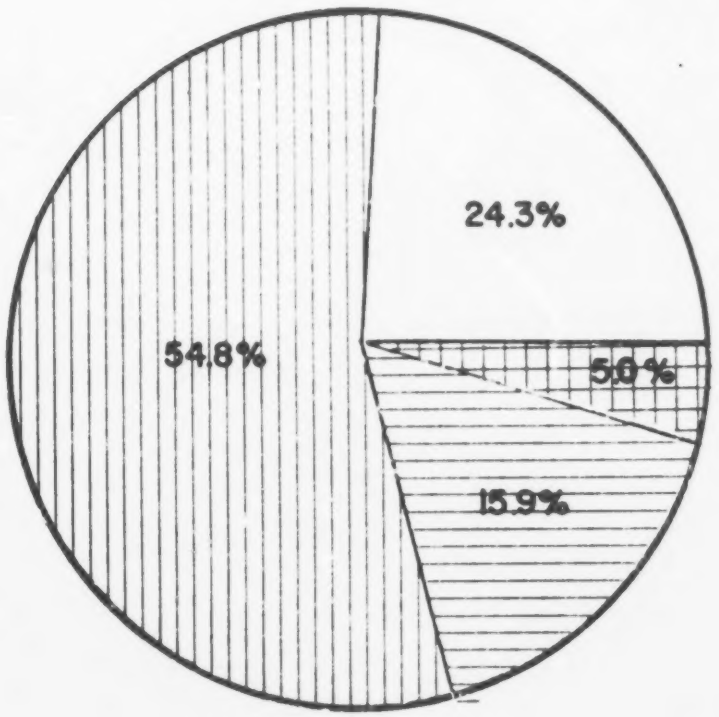
State	Existing	Proposed to 1986	Total
Colorado	985	567	1552
Montana	2112	898	3010
North Dakota	544	-2	542
South Dakota	1683	215	1898
Utah	201	131	332
Wyoming	235	12	247
Total Region VIII	5760	1821	7581

0 Combined Generating Capacity, Megawatts

State	Existing	Proposed to 1986	Total
Colorado	3767	5233	9000
Montana	2749	2628	5377
North Dakota	1779	3131	4910
South Dakota	2338	131	2469
Utah	1140	6906	8046
Wyoming	2773	3642	6415
Total Region VIII	14546	21671	36217

REGION VIII

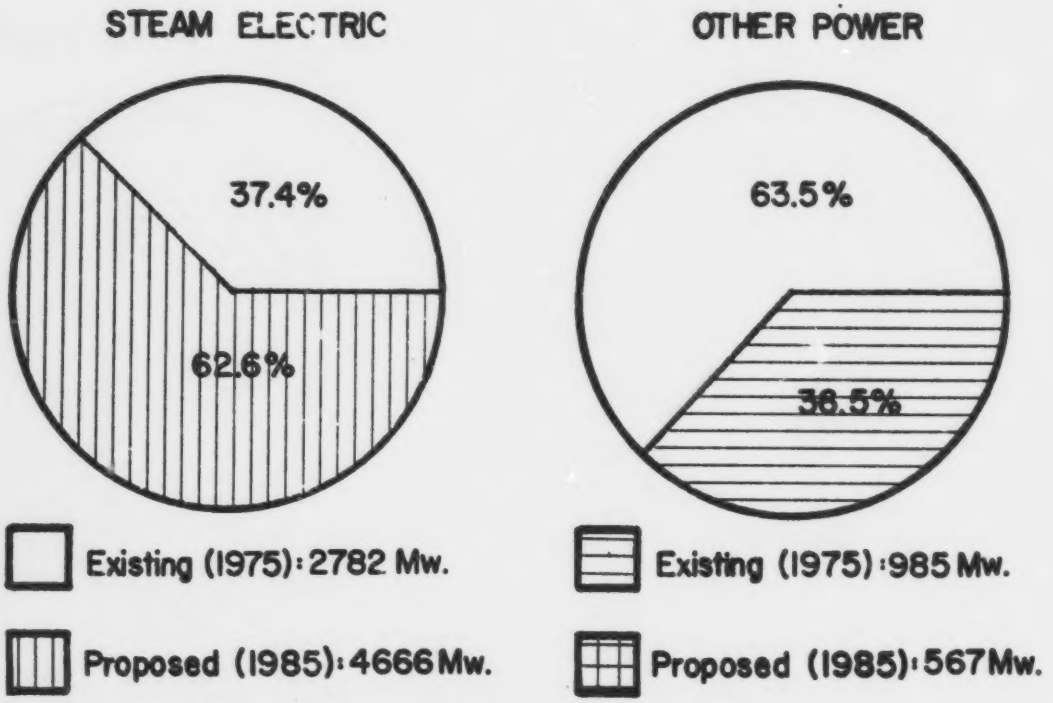


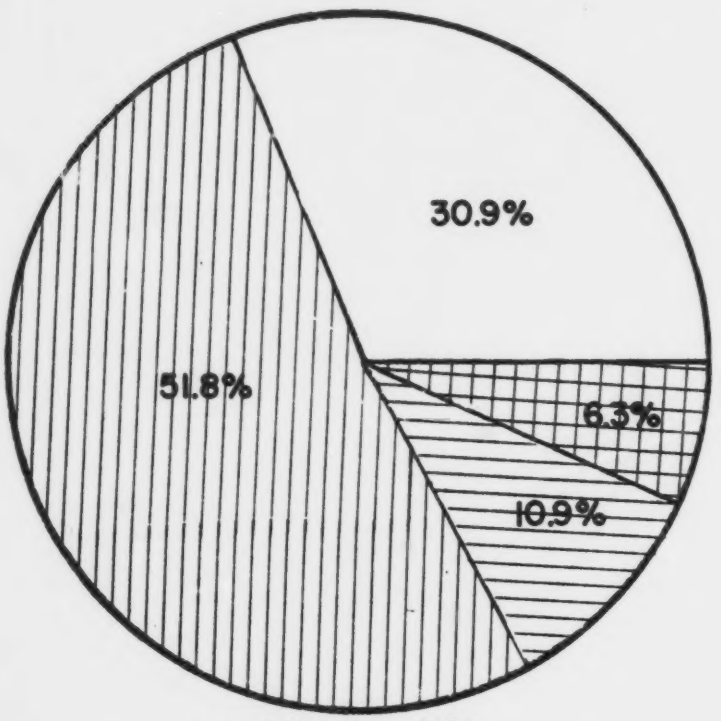


Combined to 1986

Figure 1

COLORADO

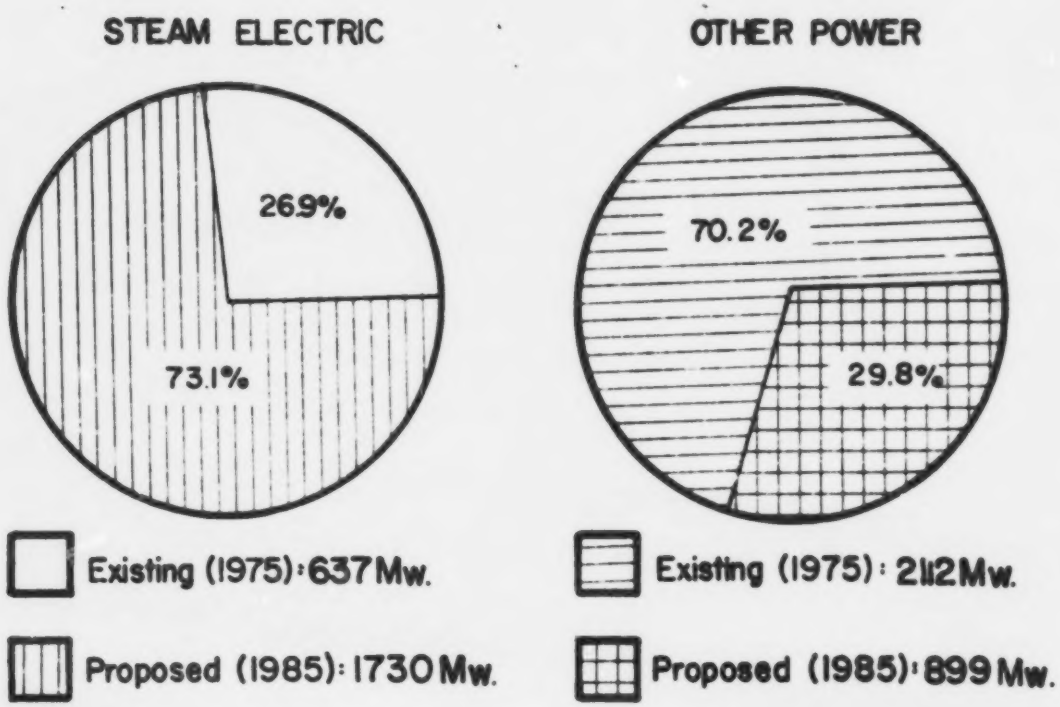




Combined to 1986

Figure 2

MONTANA



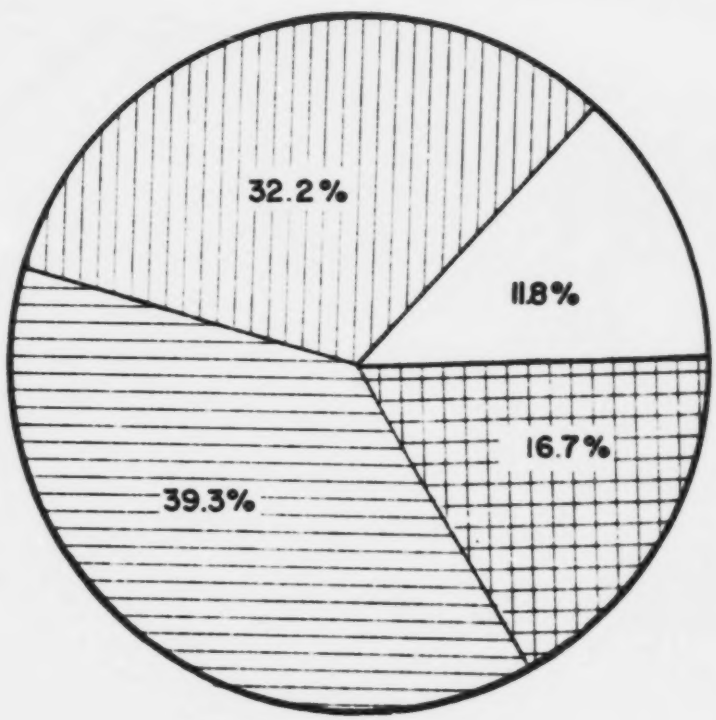


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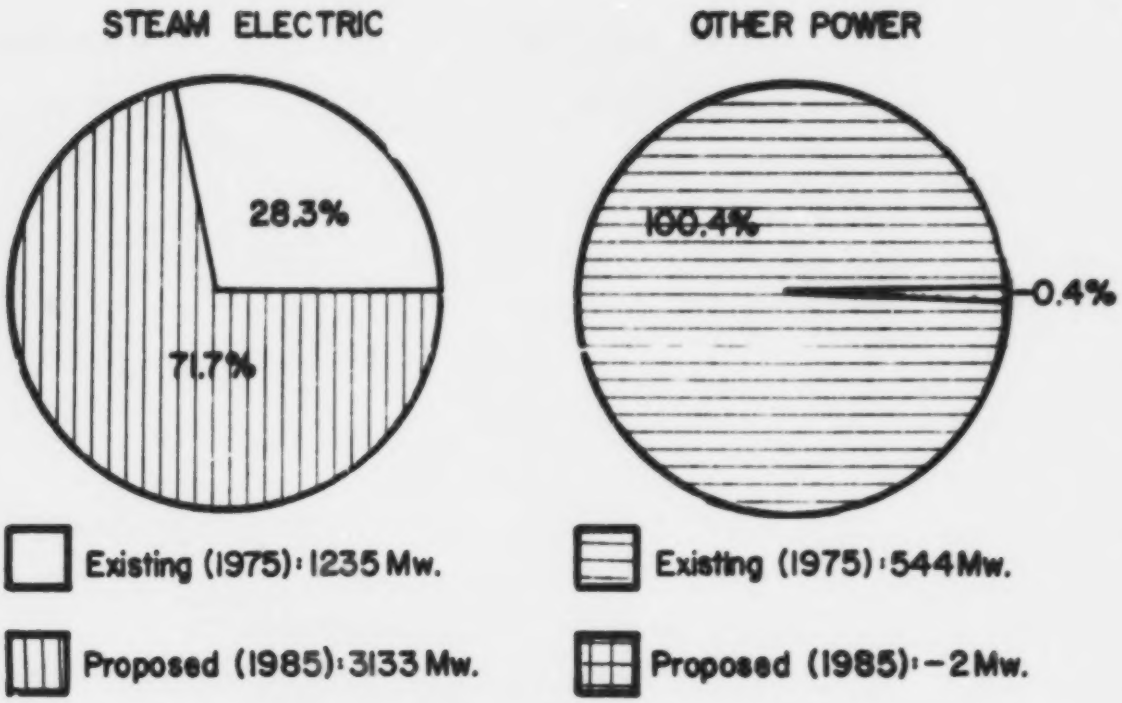
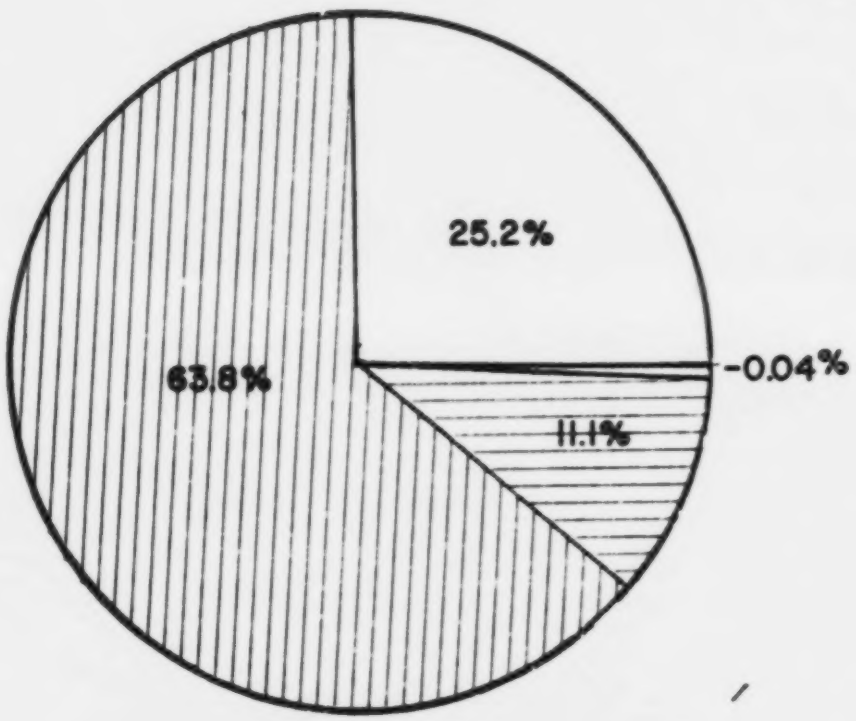
Figure 3

NORTH DAKOTA

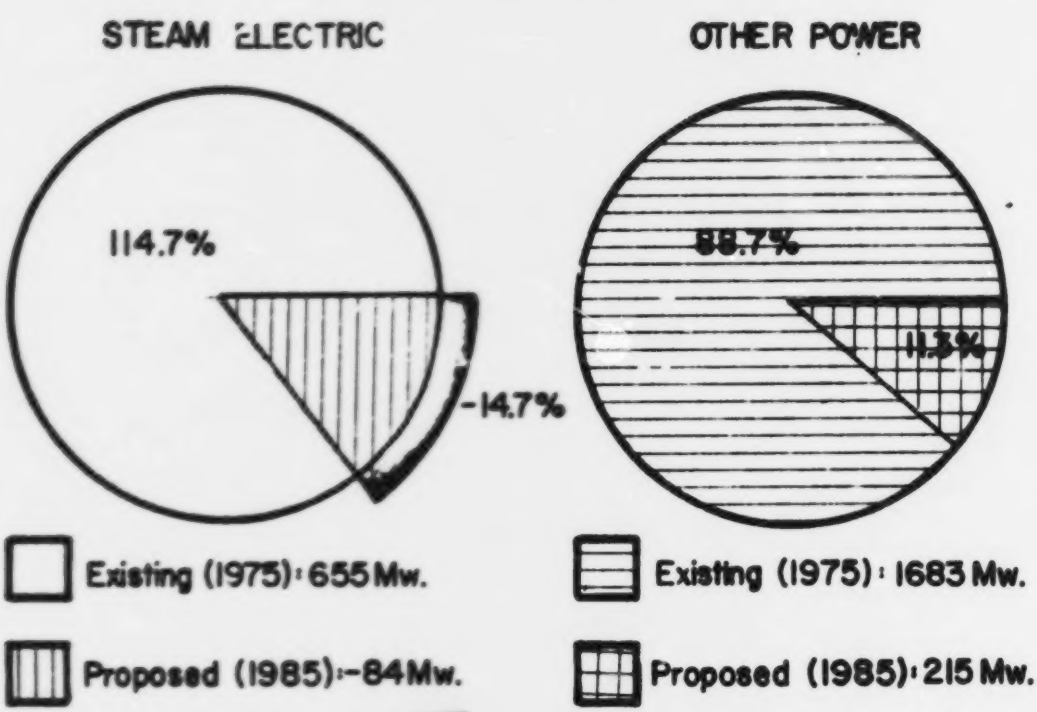


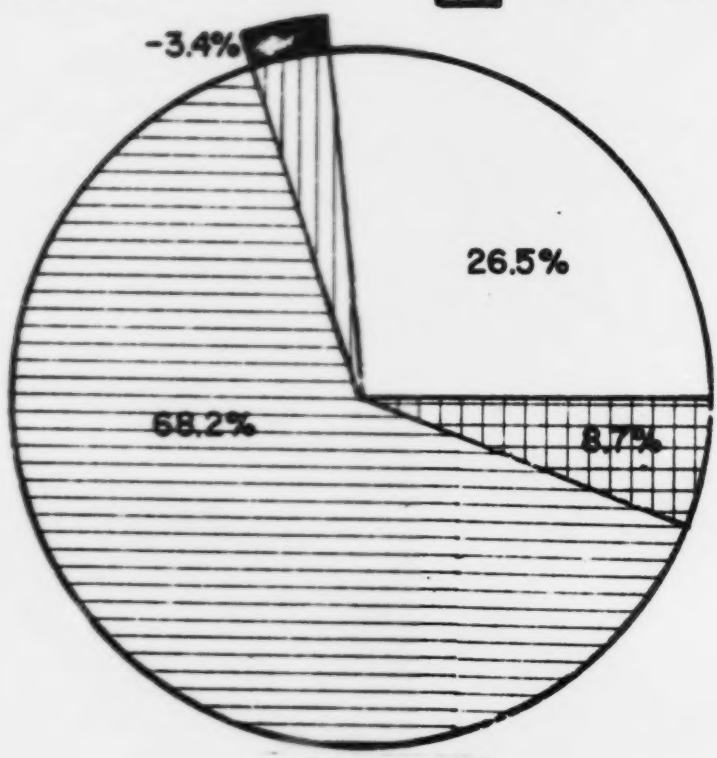


Combined to 1986

Figure 4

SOUTH DAKOTA





Combined to 1986
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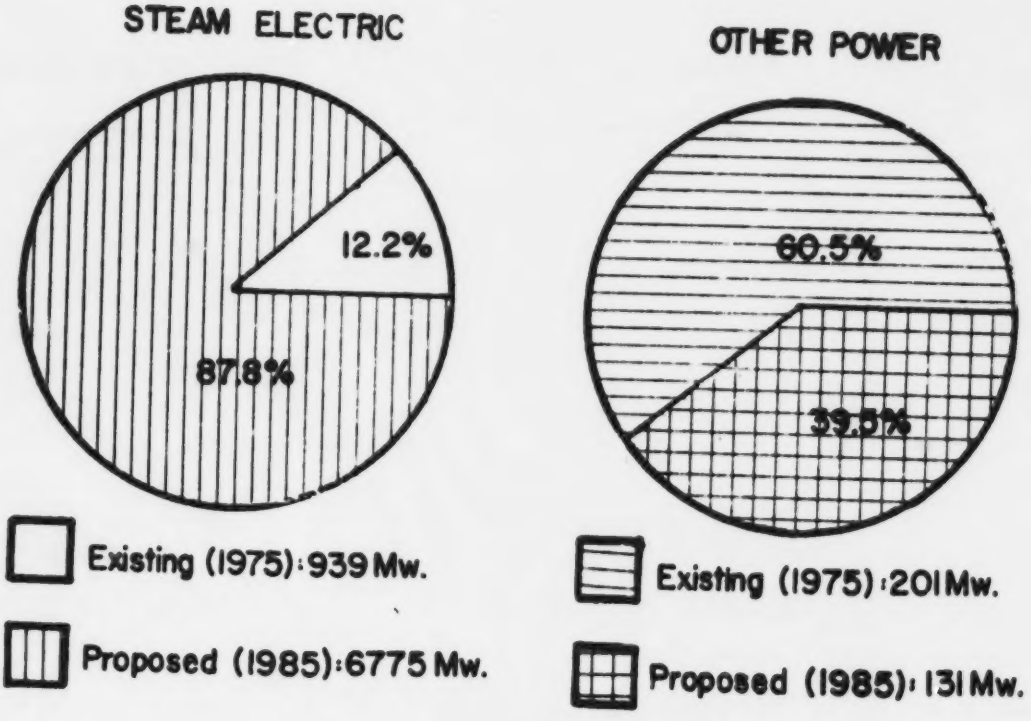
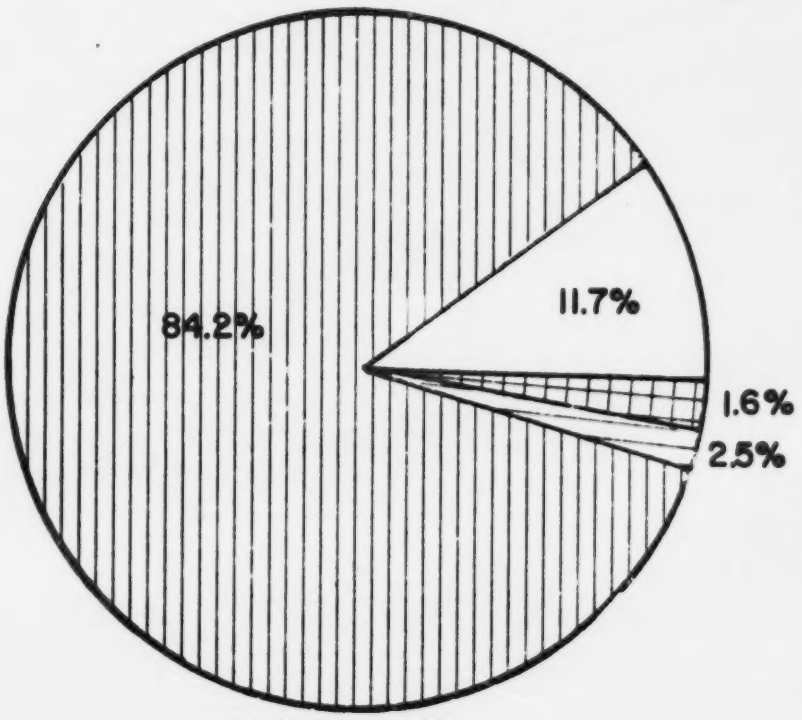
UTAH

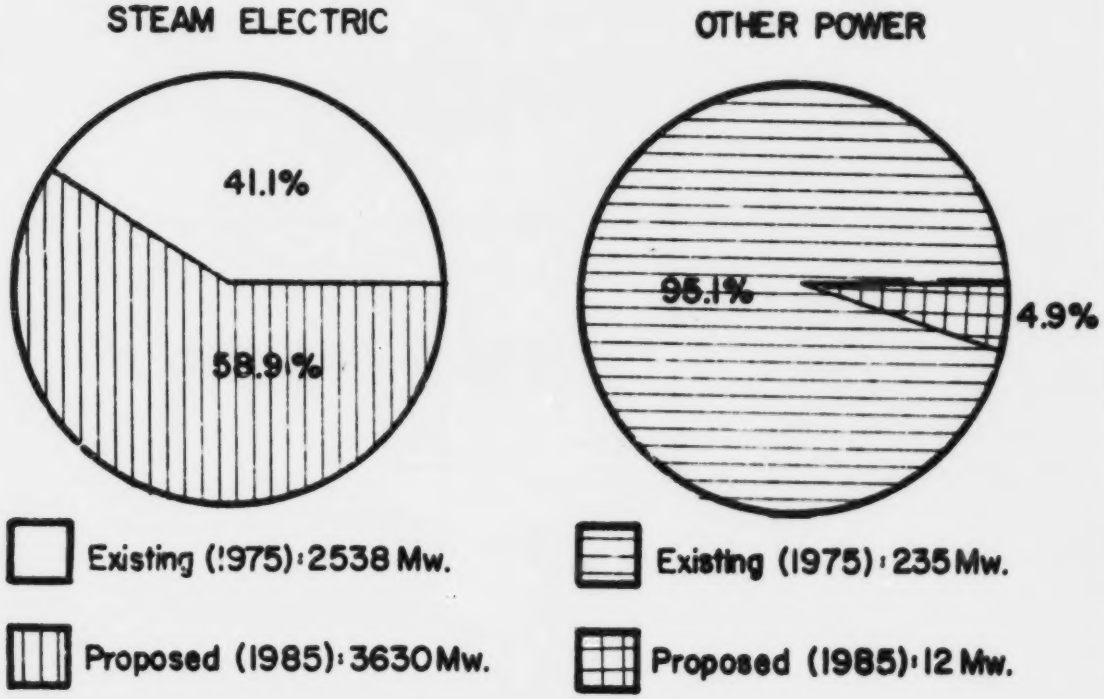


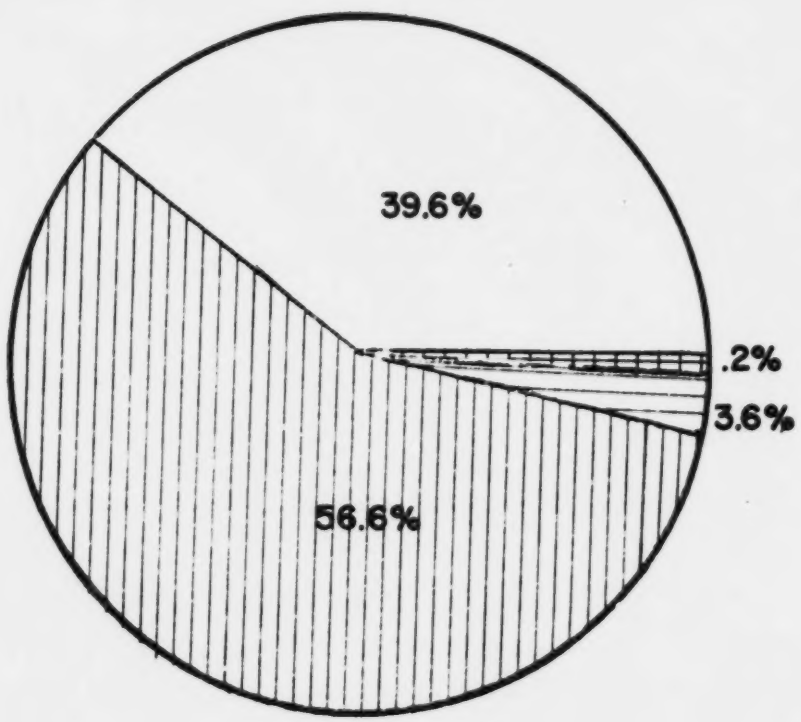


Combined to 1986

Figure 6

WYOMING





Combined to 1986
Figure 7

TABLE 2

REGION VIII GENERATING CAPACITY PROJECTIONS TO 1986

YEAR	STEAM ELECTRIC ADDITIONS (MW's)	TOTAL STEAM ELECTRIC (MW's)	OTHER SOURCES ADDITIONS (MW's)	TOTAL OTHER SOURCES (MW's)	TOTAL ELECTRIC GENERATING CAPACITY (MW's)
75-76		3786		5760	14546
76-77	1400	10186	325	6085	16271
77-78	765	1095	478	6563	17514
78-79	1624	12575	268	6831	19406
79-80	2080	14655	0	6831	21486
80-81	1595	16250	100	6931	23181
81-82	3578	19828	131	7062	26890
82-83	2280	22108	0	7062	29170
83-84	2250	24358	141	7203	31561
84-85	1638	25996	378	7581	33577
85-86	2640	28636	0	7581	36217

REGION VIII
GENERATING CAPACITY TO 1986

Figure 8

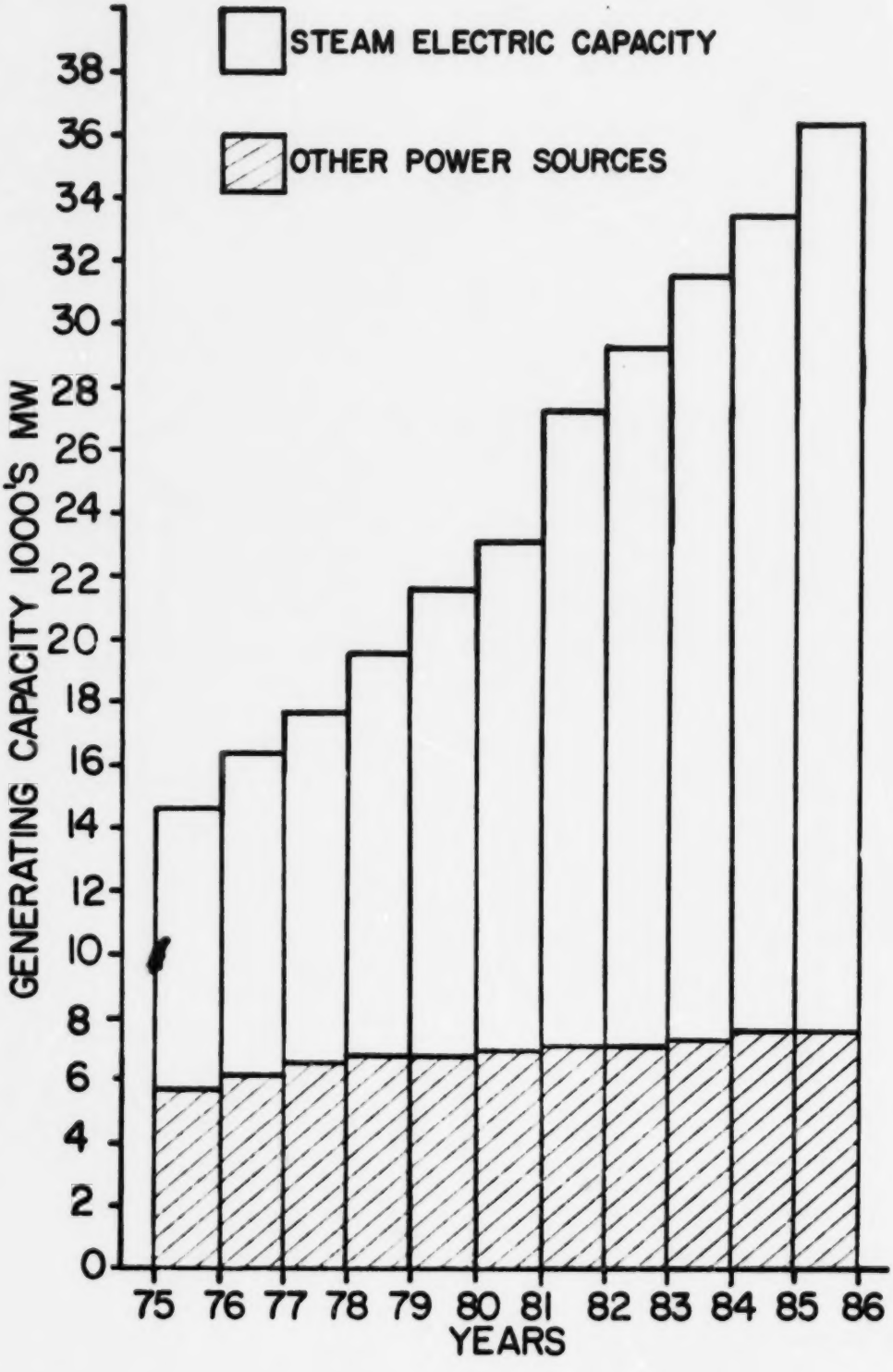


TABLE 3

COLORADO GENERATING CAPACITY PROJECTIONS TO 1986

YEAR	STEAM ELECTRIC ADDITIONS (MW's)	TOTAL STEAM ELECTRIC (MW's)	OTHER SOURCES ADDITIONS (MW's)	TOTAL OTHER SOURCES (MW's)	TOTAL ELECTRIC GENERATING CAPACITY (MW's)
75-76		2782		985	3767
76-77	580	3362	55	1040	4402
77-78	---	3362	301	1341	4703
78-79	380	3742	123	1464	5206
79-80	1080	4822	---	1464	6286
80-81	---	4822	100	1564	6386
81-82	808	5630	---	1564	7194
82-83	380	6010	---	1564	7574
83-84	500	6510	---	1564	8074
84-85	-12	6498	-12	1552	8050
85-86	950	7448	---	1552	9000

COLORADO

GENERATING CAPACITY TO 1986

Figure 9

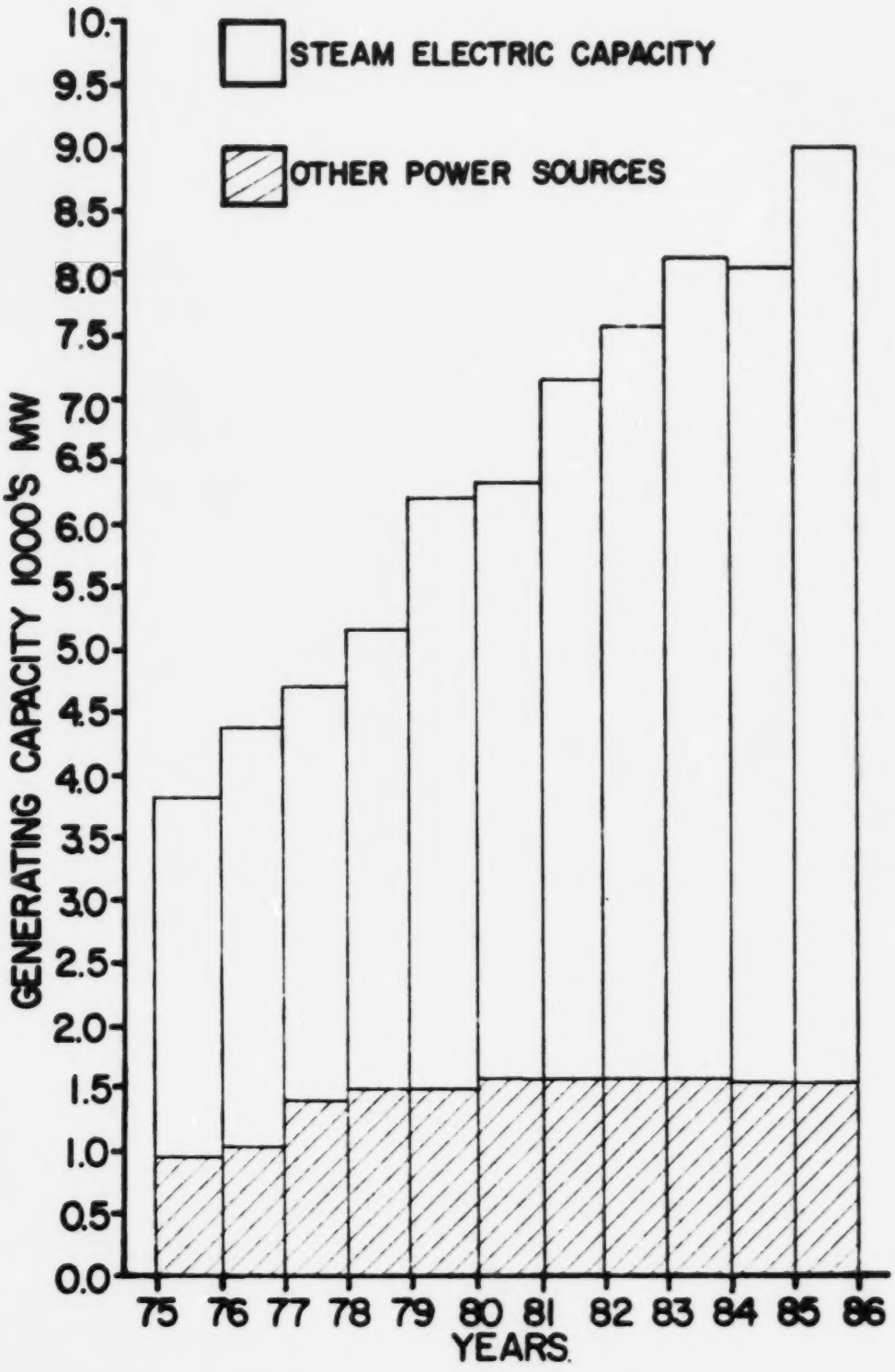


TABLE 4

MONTANA GENERATING CAPACITY PROJECTIONS TO 1986

YEAR	STEAM ELECTRIC ADDITIONS (MW's)	TOTAL STEAM ELECTRIC (MW's)	OTHER SOURCES ADDITIONS (MW's)	TOTAL OTHER SOURCES (MW's)	TOTAL ELECTRIC GENERATING CAPACITY (MW's)
75-76		637		2112	2749
76-77	330	967	240	2352	3319
77-78	---	967	125	2477	3444
78-79	---	967	---	2477	3444
79-80	---	967	---	2477	3444
80-81	700	1667	---	2477	4144
81-82	700	2367	---	2477	4844
82-83	---	2367	---	2477	4844
83-84	---	2367	143	2620	4987
84-85	---	2367	390	3010	5377
85-86	---	2367	---	3010	5377

MONTANA

GENERATING CAPACITY TO 1986

Figure 10

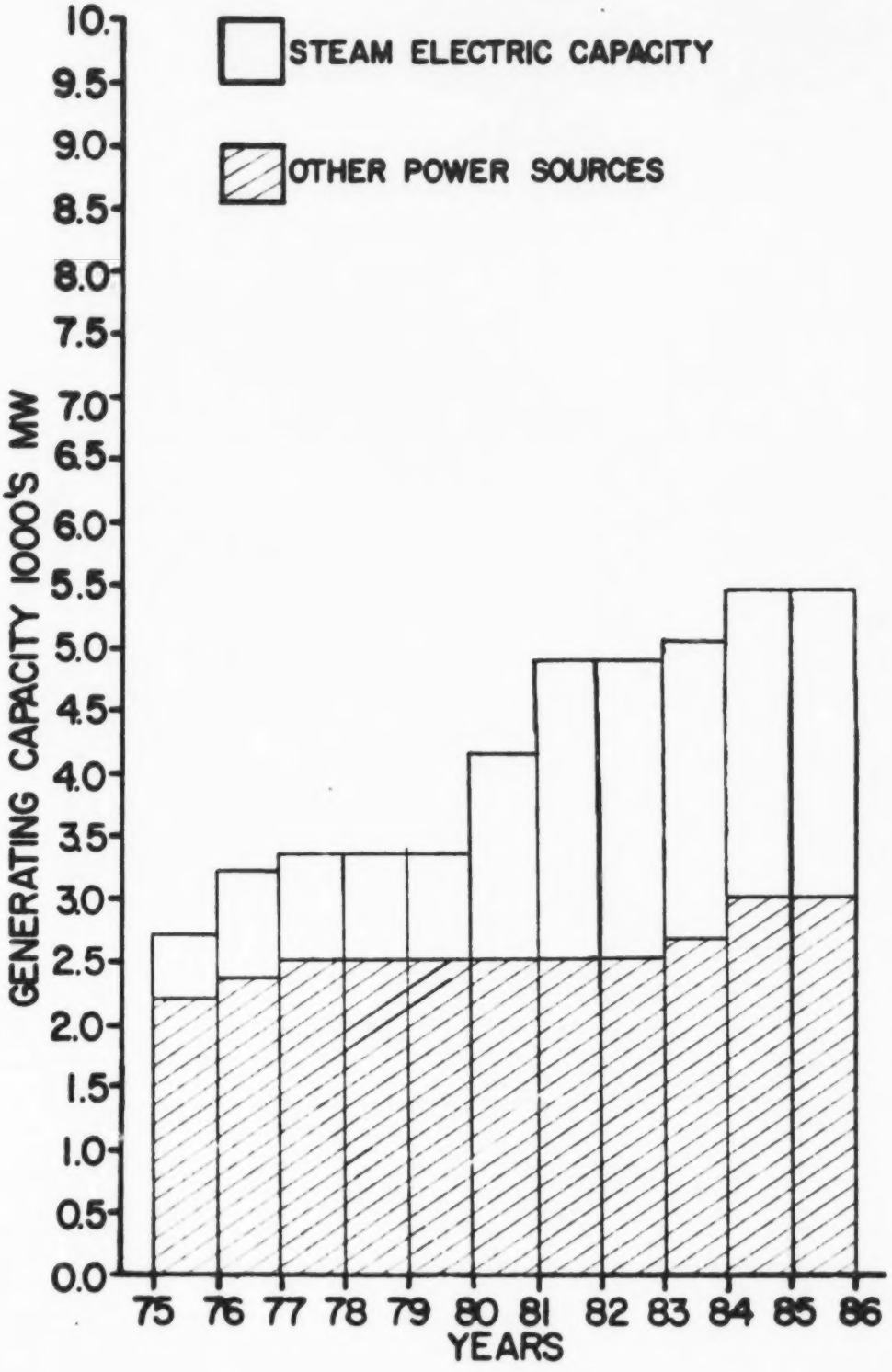


TABLE 5

NORTH DAKOTA GENERATING CAPACITY PROJECTIONS TO 1986

YEAR	STEAM ELECTRIC ADDITIONS (MW's)	TOTAL STEAM ELECTRIC (MW's)	OTHER SOURCES ADDITIONS (MW's)	TOTAL OTHER SOURCES (MW's)	TOTAL ELECTRIC GENERATING CAPACITY (MW's)
75-76		1235		544	1779
75-77	---	1235	---	544	1779
77-78	408	1643	---	544	2187
78-79	500	2143	---	544	2687
79-80	500	2643	---	544	3187
80-81	-35	2608	---	544	3152
81-82	1320	3928	---	544	4472
82-83	---	3928	---	544	4472
83-84	---	3928	-2	542	4470
84-85	---	3928	---	542	4470
85-86	440	4368	---	542	4910

NORTH DAKOTA
GENERATING CAPACITY TO 1986

Figure 11

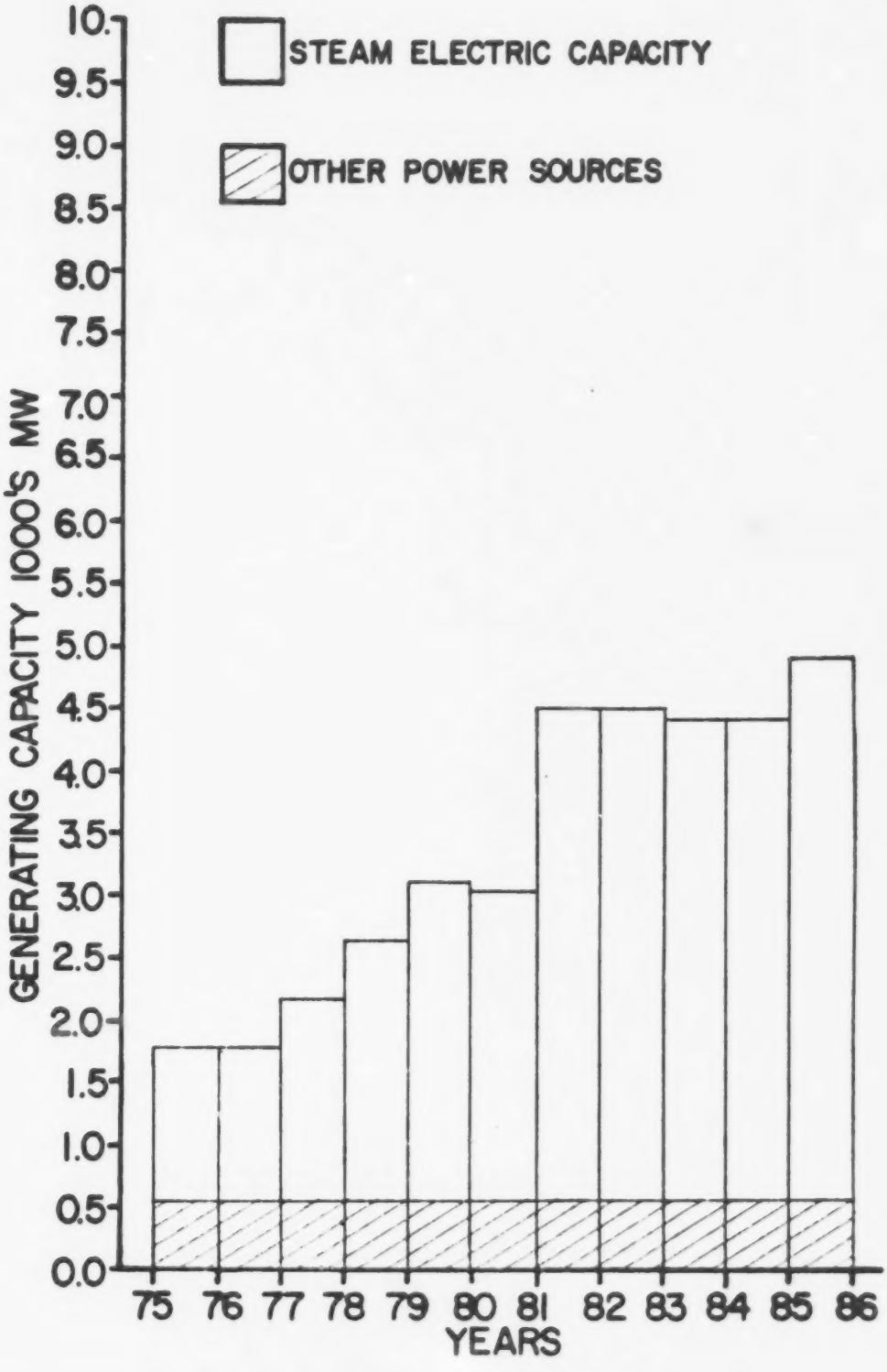


TABLE 6

SOUTH DAKOTA GENERATING CAPACITY PROJECTIONS TO 1986

YEAR	STEAM ELECTRIC ADDITIONS (MW's)	TOTAL STEAM ELECTRIC (MW's)	OTHER SOURCES ADDITIONS (MW's)	TOTAL OTHER SOURCES (MW's)	TOTAL ELECTRIC GENERATING CAPACITY (MW's)
75-76		655		1683	2338
76-77	-10	645	30	1713	2358
77-78	-58	587	40	1753	2340
78-79	-16	571	145	1898	2469
79-80	---	571	---	1898	2469
80-81	---	571	---	1898	2469
81-82	---	571	---	1898	2469
82-83	---	571	---	1898	2469
83-84	---	571	---	1898	2469
84-85	---	571	---	1898	2469
85-86	---	571	---	1898	2469

SOUTH DAKOTA
GENERATING CAPACITY TO 1986

Figure 12

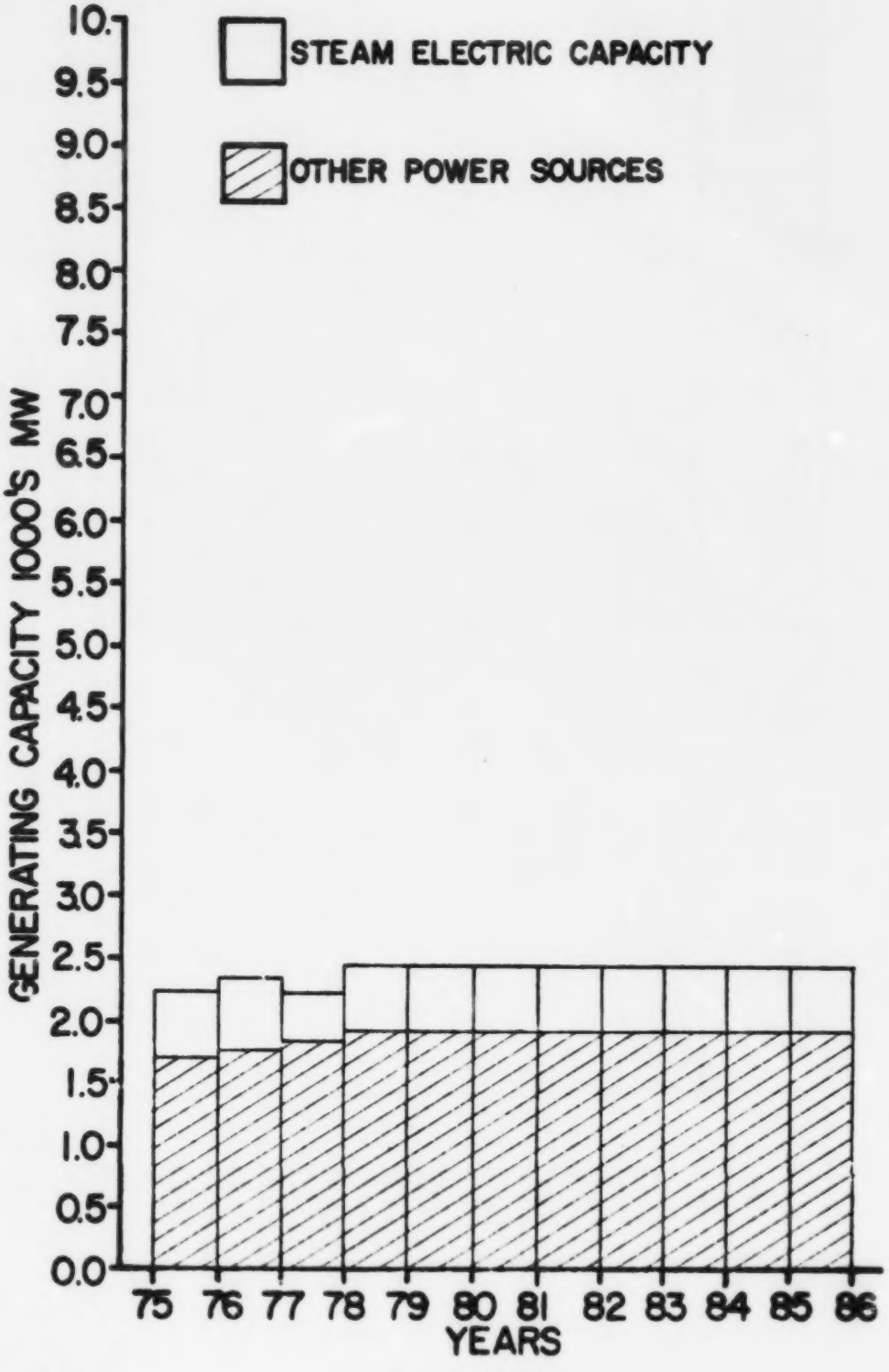


TABLE 7

UTAH GENERATING CAPACITY PROJECTIONS TO 1986

YEAR	STEAM ELECTRIC ADDITIONS (MW's)	TOTAL STEAM ELECTRIC (MW's)	OTHER SOURCES ADDITIONS (MW's)	TOTAL OTHER SOURCES (MW's)	TOTAL ELECTRIC GENERATING CAPACITY (MW's)
75-76		939		201	1140
76-77	---	939	----	201	1140
77-78	415	1354	----	201	1555
78-79	430	1784	----	201	1985
79-80	---	1784	----	201	1985
80-81	430	2214	----	201	2415
81-82	250	2464	131	332	2796
82-83	1500	3964	----	332	4296
83-84	1250	5214	----	332	5546
84-85	1250	6464	----	332	6796
85-86	1250	7714	----	332	8046

UTAH
GENERATING CAPACITY TO 1986

Figure 13

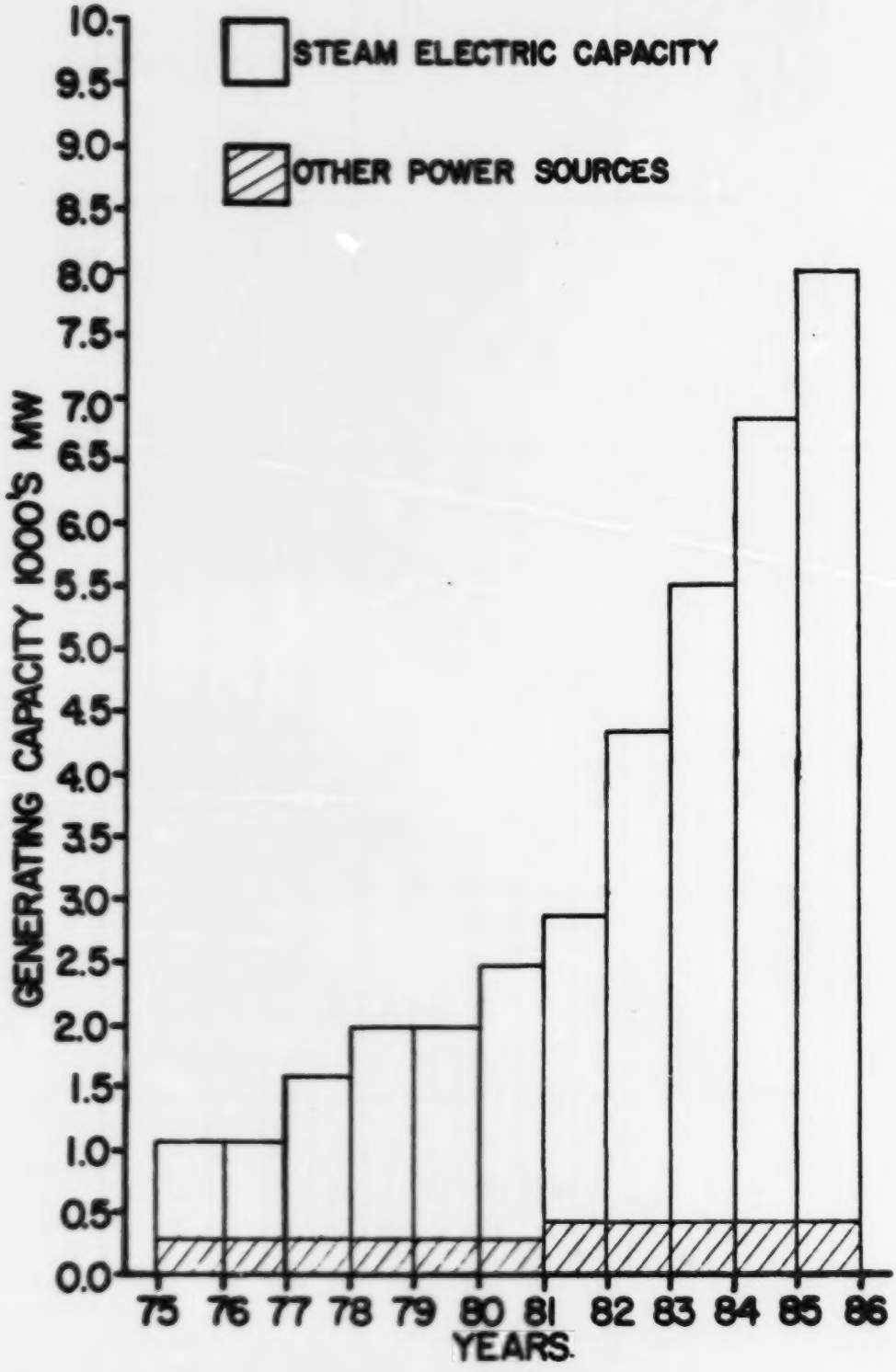


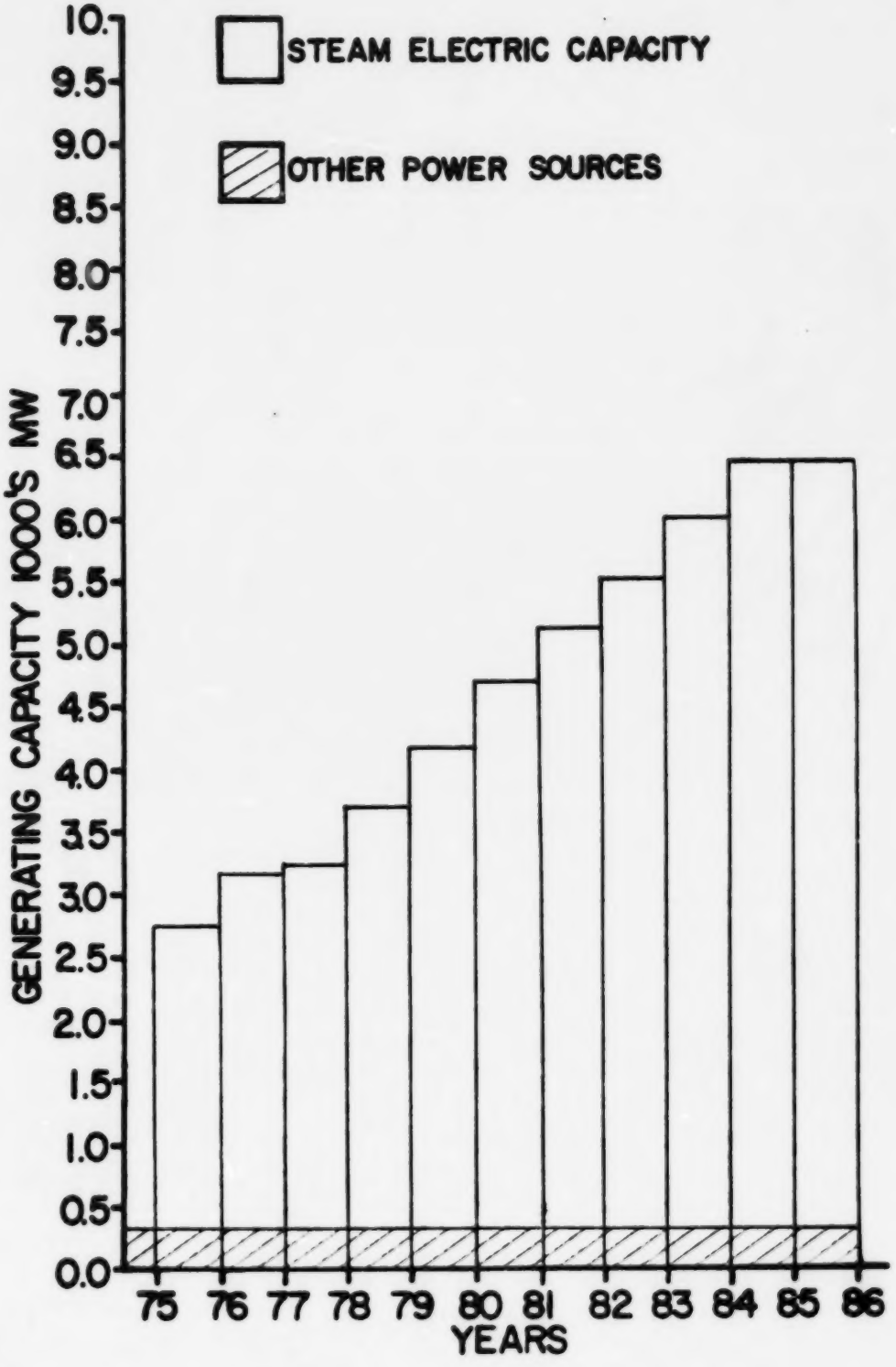
TABLE 8

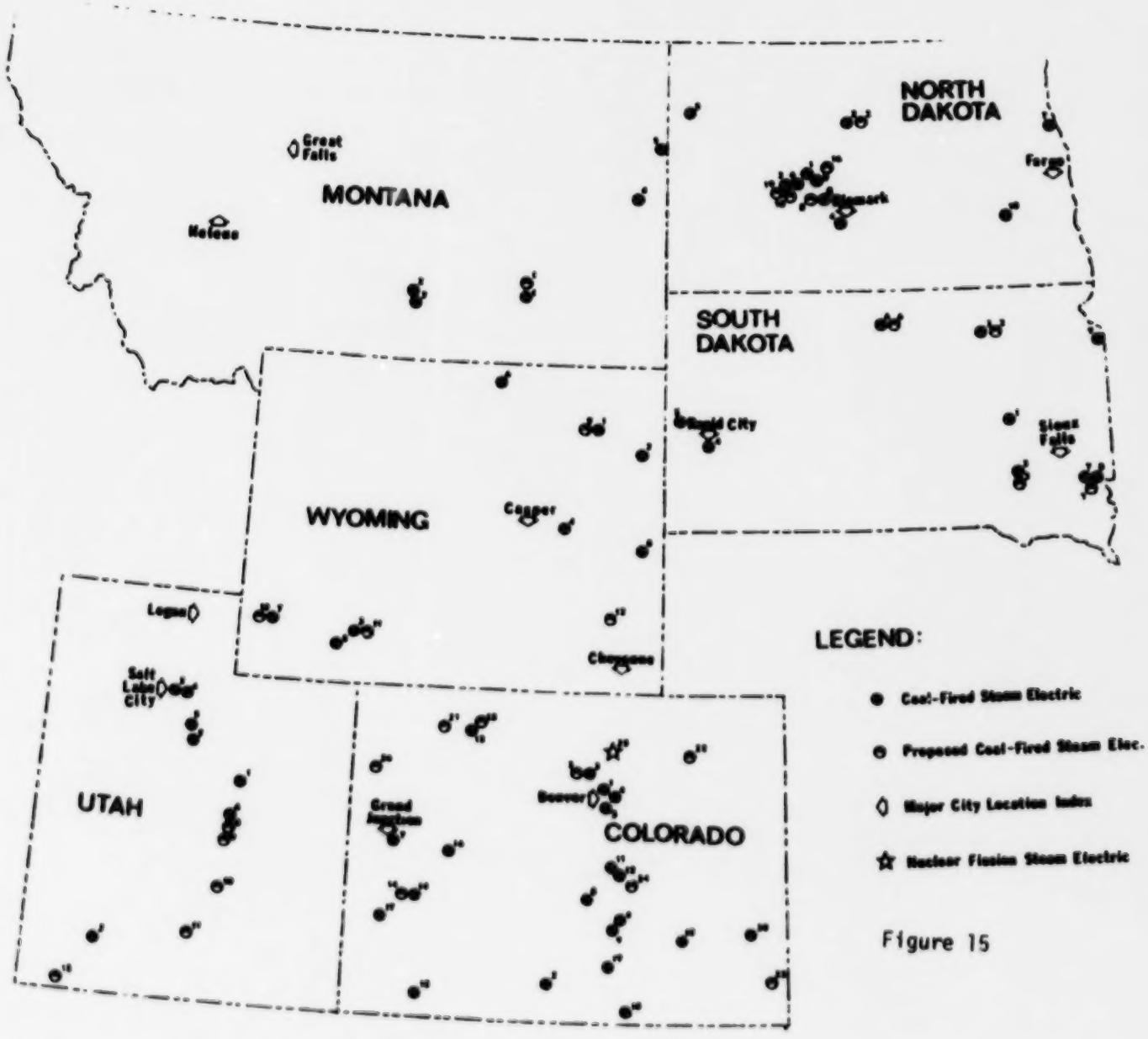
WYOMING GENERATING CAPACITY PROJECTIONS TO 1986

YEAR	STEAM ELECTRIC ADDITIONS' (MW's)	TOTAL STEAM ELECTRIC (MW's)	OTHER SOURCES ADDITIONS (MW's)	TOTAL OTHER SOURCES (MW's)	TOTAL ELECTRIC GENERATING CAPACITY (MW's)
75-76		2538		235	2773
76-77	500	3038	---	235	3273
77-78	---	3038	12	247	3285
78-79	330	3368	---	247	3615
79-80	500	3868	---	247	4115
80-81	500	4368	---	247	4615
81-82	500	4868	---	247	5115
82-83	400	5268	---	247	5515
83-84	500	5768	---	247	6015
84-85	400	6168	---	247	6415
85-86	---	6168	---	247	6415

WYOMING
GENERATING CAPACITY TO 1986

Figure 14




NORTH DAKOTA
Great Falls
MONTANA
Helena
Fargo
SOUTH DAKOTA
Rapid City
Sioux Falls
WYOMING
Casper
Logan
Cheyenne
Salt Lake City
UTAH
Grand Junction
Denver
COLORADO
LEGEND:
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Proposed Coal-Fired Steam Elec.
Major City Location Index
Nuclear Fission Steam Electric

Figure 15

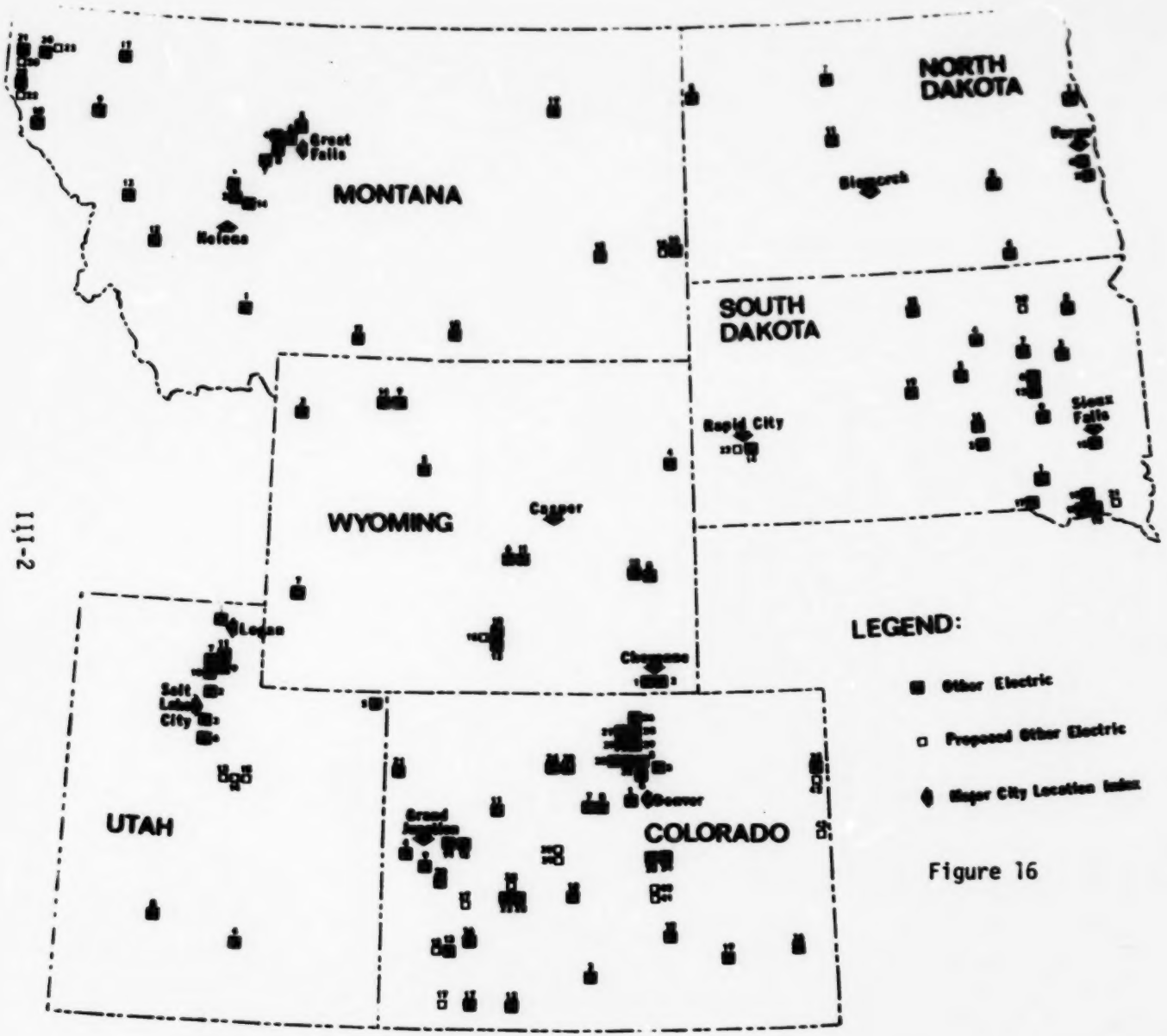
NORTH DAKOTA
MONTANA
Great Falls
Helena
Bismarck
SOUTH DAKOTA
Rapid City
Sioux Falls
WYOMING
Casper
Cheyenne
Logan
Salt Lake City
Denver
Grand Junction
UTAH
COLORADO
LEGEND:
Other Electric
Proposed Other Electric
Major City Location Index

Figure 16

TABLE 9

COMPANY CODES

BEPC - Basin Electric Power Cooperative
BHPL - Black Hills Power and Light
CCS - City of Colorado Springs
CPA - Cooperative Power Association
CUEA - Colorado-Ute Electric Association
ICPA - Intermountain Consumers Power Association
IPC - Idaho Power Company
LDWP - Los Angeles Department of Water and Power
MDU - Montana-Dakota Utilities Company
MPC - Montana Power Company
MPCI - Minkotta Power Cooperative, Inc.
MPLC - Minnesota Power and Light Company
NLVP - Nevada Power
NSPC - Northern States Power Company
NWPS - Northwestern Public Service Company
OTP - Otter Tail Power Company
PGE - Portland General Electric Company
PPLC - Pacific Power and Light Company
PRPA - Platte River Power Authority
PSC - Public Service Company of Colorado
PSPL - Puget Sound Power and Light
SCPC - Southern Colorado Power Division, Central Telephone & Utility Corp.
SRP - Salt River Project
TSGT - Tri-State G & T Association
UPA - United Power Association
USBR - Bureau of Reclamation
  USLM - Lower Missouri
  USPN - Pacific Northwest
  USUC - Upper Colorado
WWPC - Washington Water Power Company

TABLE 10

State: Colorado

A. Existing Steam Electric Power Plants

Location	Plant - Company	CAP., MW	Fuel	Code
Denver	Cherokee 1-4, PSC	706	C,G	C-1
Alamosa	Alamosa 3-6, PSC	17	O,G	C-2
Boulder	Valmont 1-5, PSC	247	C,G	C-3
Denver	Zuni 1-2, PSC	107	O,G	C-4
Denver	Arapahoe 1-4, PSC	236	C,G	C-5
Pueblo	Commanche 1-2, PSC	670	C,O,G	C-6
Cameo	Cameo 1-2, PSC	75	C,O,G	C-7
Canon City	W. N. Clark 1-2, SCPC	43	C,G	C-8
Pueblo	Pueblo 1-3, SCPC	35	C,O,G	C-9
Rocky Ford	Rocky Ford 1, SCPC	8	O,G	C-10
Colorado Springs	M. Drake 1,2a,2b-7, CCS	288	C,G	C-11
Colorado Springs	G. Birdsall 1-3, CCS	57	O,G	C-12
Hayden	Hayden 1, CUEA	180	C	C-13
Montrose	Bullock 1-2, CUEA (1/84 retirement)	12	C,O	C-14
Durango	Durango 2-4, CUEA	5	C,O,G	C-15
Somerset	Oliver 1-2, CUEA	3	C	C-16

State: Colorado (Cont'd)

A. Existing Steam Electric Power Plants

Location	Plant - Company	CAP.,MW	Fuel	Code
Nucla	Nucla 1-3, CUEA	36	C	C-17
Trinidad	Trinidad - Trinidad Elec. Pwr. & Light Dept.	7	C,O,G	C-18
Walsenburg	Walsenburg - Walsenburg Utilities	11	C	C-19
Lamar	Lamar 1-4, City of Lamar Lt. & Wtr. Dept.	39	O,G	C-20

TOTAL: Existing Steam Electric Power Plants Capacity 2,782

B. Proposed Steam Electric Power Plants

Craig	Craig #1, CUEA 29%, SRP 29%, TSGT 24%, PRPA 18%	380 (4/78)	C	C-21
Craig	Craig #2, CUEA 29%, SRP 29%, TSGT 24%, PRPA 18%	380 (4/79)	C	C-21
Craig	Craig #3, CUEA, 190 MW, 190 MW uncommitted	380 (7/81)	C	C-21
Craig	Craig #4, CUEA 190 MW, 190 MW uncommitted	380 (7/82)	C	C-21
Hayden	Hayden #2, CUEA 20%, SRP 80%	250 (7/76)	C	C-13
Brush	Pawnee #1, PSC	500 (4/79)	C	C-22
Brush	Pawnee #2, PSC	500 (4/81)	C	C-22
Southeastern Colorado	Southeastern #1, PSC	500 (4/83)	C	C-23
Southeastern Colorado	Southeastern #2, PSC	500 (4/85)	C	C-23
Rangely	No Name, Moon Lake Electric Assoc (Potential)	250 (1985)	C	C-26

State: Colorado (Cont'd)

B. Proposed Steam Electric Power Plants

Location	Plant - Company	CAP.,MW	Fuel	Code
Fountain	R. D. Nixon #1, CCS	200 (10/79)	C	C-24
Fountain	R.D. Nixon #2, CCS	200 (10/85)	C	C-24
Boulder	Valmont 1-4, PSC (plant retired)	-72 (1/81)	G	C-3
Montrose	Bullock 1-2, CUEA (Plant retired)	-12 (1/84)	C	C-14

TOTAL: Proposed Steam Electric Power Plant Capacity. 4,336*

TOTAL: Existing and Proposed Steam Electric Power Plant Capacity 7,118*

C. Coal Gasification - None

D. Nuclear Power Plants

Platteville	Fort St. Vrain #1, PSC	330 (4/76)	N(GCA-HTGR)	C-25

*Does not include Fort St. Vrain

State: Colorado

A. Other Existing Power Generating Capacity

Location	Plant-Company	System	CAP.,MW	Fuel	Code
Denver	Cherokee Diesel, PSC	Diesel	5	O	CO-1
Alamosa	Alamosa Terminal 1, PSC	Com. Turb.	17	O,G	CO-2
Fort Lupton	Fort Lupton 1-2, PSC	Com. Turb.	90	O,G	CO-3
Fruita	Fruita 1, PSC	Com. Turb.	19	O,G	CO-4
Boulder	Valmont 6, PSC	Com. Turb.	47	O,G	CO-5
Boulder	Boulder Hydro 1-2, PSC	Hydro	5	---	CO-6
Georgetown	Cabin Creek, 1-2, PSC	Hydro-PS	162	---	CO-7
Georgetown	Georgetown Hydro 1-2, PSC	Hydro	2	---	CO-8
Grand Junction	Palisade 1-2, PSC	Hydro	2	---	CO-9
Salida	Salida Hydro 1-2, PSC	Hydro	1	---	CO-10
Glenwood Springs	Shoshone Hydro 1-2, PSC	Hydro	15	---	CO-11
Pagosa Springs	Pagosa 1-2, CUEA	Diesel	2	O	CO-12
Ophir	Ames, CUEA (1/84 retirement)	Hydro	4	---	CO-13
Molina	Upper Molina, CUEA	Hydro	9	---	CO-14
Molina	Lower Molina, CUEA	Hydro	5	---	CO-15
Ouray	Ouray, CUEA	Hydro	1	---	CO-16
Durango	Tacoma, CUEA (1/84 retirement)	Hydro	8	---	CO-17

State: Colorado (Cont'd)

A. Other Existing Power Generating Capacity

Location	Plant-Company	System	CAP.,MW	Fuel	Code
Pueblo	Pueblo, SCPC	Diesel	10	O	CO-18
Rocky Ford	Rocky Ford Diesel, SCPC	Diesel	10	O	CO-19
Delta	Delta 1-7, USUC	Diesel	4	G,O	CO-20
Rangely	Rangely 1-7, USUC	Diesel	13	G,O	CO-21
Gunnison	Morrow Point, USUC	Hydro	69	---	CO-22
Gunnison	Blue Mesa 1-2, USUC	Hydro	69	---	CO-23
Kremmling	Green Mountain 1-2, USLM	Hydro	22	---	CO-24
Estes Park	Estes 1-3, USLM	Hydro	45	---	CO-25
Loveland	Flatiron 1-3, USLM	Hydro	72	---	CO-26
Estes Park	Mary's Lake, USLM	Hydro	8	---	CO-27
Loveland	Pole Hill, USLM	Hydro	33	---	CO-28
Loveland	Big Thompson, USLM	Hydro	4	---	CO-29
Parshall	Williams Fork, USLM	Hydro	3	---	CO-30
Estes Park	Estes, PRPA	Hydro	1	---	CO-31
Lyons	Longmont-Loveland 1-2, PRPA	Hydro	1	---	CO-32
Manitou Springs	Ruxton 1, CCS	Hydro	1	---	CO-33
Manitou Springs	Manitou 1-2, CCS	Hydro	5	---	CO-34

State: Colorado (cont'd)

A. Other Existing Power Generating Capacity

Location	Plant-Company	System	CAP.,MW	Fuel	Code
Wray	Republican R Stat 1-2, TSGT	Com. Turbine	219	O	CO-35
Lamar	Lamar Diesel 1-2, City of Lamar	Diesel	2	O	CO-36
Total: Other Existing Power Generating Capacity			985		

B. Other Proposed Power Generating Capacity

Durango	Tacoma, CUEA (plant retired)	Hydro	-8 (1/84)	---	CO-17
Ophir	Ames, CUEA (plant retired)	Hydro	-4 (1/84)	---	CO-13
Montrose	Crystal 1, USUC	Hydro	32 (10/77)	---	CO-37
Gunnison	Morrow Point 2, USUC	Hydro	69 (4/77)	---	CO-38
Leadville	Mount Elbert 1, USLM	Hydro-PS	100 (11/77)	---	CO-39
Leadville	Mount Elbert 2, USLM	Hydro-PS	100 (2/80)	---	CO-40
Colorado Springs	Gas Turbine 1, CCS	Gas Turbine	55 (1976)	G	CO-41
Colorado Springs	Gas Turbine 2, CCS	Gas Turbine	55 (1978)	G	CO-41
Wray	Wray Peaking Unit 4, TSGT	Com. Turbine	68 (8/78)	O	CO-42

State: Colorado (Cont'd)

B. Other Proposed Power Generating Capacity

Location	Plant-Company	System	CAP.,MW	Fuel	Code
Burlington	Burlington 1-2, TSGT	Com Turbine	100 (5/77)	O	CO-43

Total: Other Proposed Power Generating Capacity. 567

Total Other Existing and Proposed Generating Capacity 1552

TABLE 11

State: Montana

A. Existing Steam Electric Power Plants

Location	Plant - Company	CAP.,MW	Fuel	Code
Colstrip	Colstrip #1, MPC 50%, PSPL 50%	330	C	M-1
Billings	Corette, MPC	180	C,G	M-2
Billings	Bird, MPC	70	O,G	M-3
Glendive	Glendive 1-2, MDU	7	O,G	M-4
Sidney	Lewis and Clark, MDU	50	C,G	M-5

Total: Existing Steam Electric Power Plant Capacity 637

B. Proposed Steam Electric Power Plants

Colstrip	Colstrip #2, MPC 50%, PSPL 50%	330 (7/76)	C	M-1
Colstrip*	Colstrip #3, MPC 30%, PSPL 25%, PGE 20%, AWPC 15%, PPLC 10%	700 (7/80)	C	M-1
Colstrip*	Colstrip #4, MPC 30%, PSPL 25%, PGE 20%, AWPC 15%, PPLC 10%	700 (7/81)	C	M-1

Total: Proposed Steam Electric Power Plant Capacity 1730

Total: Existing and Proposed Steam Electric Power Plant Capacity. 2367

C. Coal Gasification Plants -

Dryer Brothers Ranch Near Circle, Montana	Circle West Project	3000 TPD Ammonia (83) 5000 TPD Methanol (85) 30000 BPD Diesel (87)	C	M-6

D. Nuclear Power Plants - None

* Conditional approval by Montana Borad of Health, January 1976

State: Montana

A. Other Existing Power Generating Capacity

Location	Plant-Company	System	CAP.,MW	Fuel	Code
Madison River	Madison 1-4, MPC	Hydro	9	---	MO-1
Missouri River	Hauser 1-6, MPC	Hydro	17	---	MO-2
Missouri River	Holter 1-4, MPC	Hydro	49	---	MO-3
Missouri River	Black Eagle 1-3, MPC	Hydro	18	---	MO-4
Missouri River	Rainbow 1-8, MPC	Hydro	35	---	MO-5
Missouri River	Cochrane 1-2, MPC	Hydro	50	---	MO-6
Missouri River	Ryan 1-6, MPC	Hydro	60	---	MO-7
Missouri River	Morony 1-2, MPC	Hydro	47	---	MO-8
Flathead River	Kerr 1-3, MPC	Hydro	180	---	MO-9
Clarks Fork River	Thompson Falls 1-6, MPC	Hydro	40	---	MO-10
West Rosebud River	Mystic 1-2, MPC	Hydro	12	---	MO-11
Flint Creek	Flint Creek 1-2, MPC	Hydro	1	---	MO-12
Clarks Fork River	Milltown 1-5, MPC	Hydro	3	---	MO-13
Canyon Ferry	Canyon Ferry 1-3, MPC (USBR)[1]	Hydro	58	---	MO-14
Miles City	Miles City, MDU	Gas Turbine	22	G	MO-15

State: Montana (cont'd)

A. Other Existing Power Generating Capacity

Location	Plant-Company	System	CAP.,MW	Fuel	Code
Baker	Baker 1-3, MDU (5/1/76 Retirement)	Gas Turbine	1	G	MO-16
Flathead	Hungry Horse 1-4, South Fork - USPN	Hydro	328	---	MO-17
Yellowtail	Yellowtail 1-4, USBR[1]	Hydro	288	---	MO-18
Fort Peck	Fort Peck 1-5, USBR[1]	Hydro	198	---	MO-19
Kootenay River	Libby Unit 1-2, USCE	Hydro	242	---	MO-20
Libby	Libby Turbine, PPL	Com. Turbine	24	G	MO-21
Clark Fork River	Noxon Rapids, WWPC	Hydro	430	---	MO-22

Total: Other Existing Power Generating Capacity. 2112

1 Upper Missouri Region

B. Other Proposed Power Generating Capacity

Baker	Baker 1-3, MDU (retired)	Gas Turbine	-1 (5/76)	---	MO-16
Kootenay River	Libby Unit 3, USCE	Hydro	121 (1/76)	---	MO-20
Kootenay River	Libby Unit 4, USCE	Hydro	120 (4/76)	---	MO-20
Kootenay River	Libby Unit 5, USCE	Hydro	121 (10/83)	---	MO-20
Kootenay River	Libby Unit 6, USCE	Hydro	121 (1/84)	---	MO-20
Kootenay River	Libby Unit 7, USCE	Hydro	121 (4/84)	---	MO-20
Kootenay River	Libby Unit 8, USCE	Hydro	120 (7/84)	---	MO-20

State: Montana (cont'd)

B. Other Proposed Power Generating Capacity (cont'd)

Location	Plant-Company	System	CAP.,MW	Fuel	Code
Kootenay River	Libby REREG 1, USCE	Hydro	8 (7/83)	---	MD-23
Kootenay River	Libby REREG 2, USCE	Hydro	14 (9/83)	---	MD-23
Kootenay River	Libby REREG 3, USCE	Hydro	14 (1/84)	---	MD-23
Kootenay River	Libby REREG 4, USCE	Hydro	14 (4/84)	---	MD-23
Clark Fork River	Noxon Rapids 5, WWPC	Hydro	125 (11/77)	---	MD-22

Total: Other Proposed Power Generating Capacity 898

Total: Other Existing and Proposed Power Generating Capacity 3010

TABLE 12

State: North Dakota

A. Existing Steam Electric Power Plants

Location	Plant - Company	CAP.,MW	Fuel	Code
Stanton	Leland Olds 1-2, BEPC	650	C	ND-1
Voltaire	W.J. Neal, BEPC (11/1/80 retirement)	35	C	ND-2
Buelah	Dakota 3, MDU	8	C	ND-3
Mandan	Heskett 1-2, MDU	100	C,G	ND-4
Williston	Williston, MDU	2	G,O	ND-5
Beulah	Knife River 1-2, MDU	6	C	ND-6
Grand Forks	F.P. Wood 1-3, MPCI	22	C	ND-7
Center	M.R. Young 1, MPCI	240	C,G	ND-8
Stanton	Stanton, UPA	167	C	ND-9
Valley City	Valley City, Valley City Munip. Util.	5	C	ND-10

Total: Existing Steam Electric Power Plant Capacity 1235

State: North Dakota (Cont'd)

B. Proposed Steam Electric Power Plants

Location	Plant-Company	CAP, MW	Fuel	Code
Voltaire	W. J. Neal, BEPC (Plant Retired)	-35 (11/80)	C	ND-2
Beulah	ANG 1-2, BEPC	880 (1981)	C	ND-19
Center	M.R. Young 2, MPLC (MPCI*)	408 (5/1/77)	C	ND-8
Underwood	Coal Creek 1, UPA-215 MW, CPA -285MW	500 (11/1/78)	C	ND-16
Underwood	Coal Creek 2, UPA-215 MW, CPA-285 MW	500 (11/1/79)	C	ND-16
Beulah	Coyote 1, MPCI 32%, OTP 37%, MDU 21%, NWPS 10%	440 (5/1/81)	C	ND-18
Beulah	Coyote 2, MPCI	440 (1985)	C	ND-18
Beulah	Coyote 3, MPCI	440 (1989)	C	ND-18

Total: Proposed Steam Electric Power Plant Capacity 3573

Total: Existing and Proposed Steam Electric Power Plant Capacity. 4808

C. Coal Gasification Plants

Beulah-Hazen (3-4 miles North of Beulah, 2 miles West of Highway 49)	American Natural Gas (1981)	280 MM SCFD 1000 MM SCFD (planned)	C	ND-24
Dunn County (East of Killdeer Along Highway 200)	Peoples Gas Co (1982)	250 MM SCFD 1000 MM SCFD (planned)	C	ND-25

D. Nuclear Power Plants - None

*M. R. Young 2 becomes a shared unit on 11/1/84; MPLC owns 288 MW and MPCI owns 120 MW.

State: North Dakota

A. Other Existing Power Generating Capacity

Location	Plant-Company	System	CAP.,MW	Fuel	Code
Grand Forks	Grand Forks 1-11, MPCI	Diesel	11	O	NDO-1
Harwood	Harwood 1-3, MPCI	Diesel	5	O	NDO-2
Warroad	Warroad 1,2,5, MPCI (11/1/83 retirement)	Diesel	2	O	NDO-3
Ellendale	Ellendale 1-2, MDU	Diesel	3	O	NDO-4
Williston	Williston 2,3, MDU	Gas Turbine	10	G	NDO-5
Fargo	Fargo 1-3, NSPC	Diesel	3	O	NDO-6
Minot	Minot 1-2, NSPC	Diesel	1	O	NDO-7
Jamestown	Spiritwood, OTP	Gas Turbine	24	G	NDO-8
Various Locations	Various Units, OTP	Diesel	22	O	NDO-9
Various Locations	Various Units, OTP	Hydro	4	---	NDO-10
Garrison	Garrison 1-5, USBR[1]	Hydro	459	---	NDO-11

Total: Other Existing Power Generating Capacity 544

B. Other Proposed Power Generating Capacity

Warroad	Warroad 1,2,5, MPIC (Plant Retired)	Diesel	-2	(11/83)	O	NDO-3

Total: Other Proposed Power Generating Capacity -2

Total: Other Existing and Proposed Generating Capacity 542

1 Upper Missouri Region

TABLE 13

State: South Dakota

A. Existing Steam Electric Power Plants

Location	Plant - Company	CAP.,MW	Fuel	Code
Huron	Huron, NWPS	13	O,G	SD-1
Aberdeen	Aberdeen 2,3, NWPS (#2-11/1/76, #3-11/1/78 retirement)	13	C,G	SD-2
Mitchell	Mitchell 2,3, NWPS (#2-11/1/76, #3-11/1/78 retirement)	13	C,G	SD-3
Rapid City	Ben French, BHPL	22	C,O,G	SD-4
Lead	Kirk 1-4, BHPL	31	C	SD-5
Morbridge	Mobridge 2, MDU (9/1/77 retirement)	9	C	SD-6
Sioux Falls	Lawrence 1-3, NSPC (12/31/77 retirement)	49	C,G	SD-7
Sioux Falls	Pathfinder, NSPC	65	O,G	SD-8
Big Stone Lake	Big Stone #1, OTP--209 MW, NWPC--143 MW, MDU--88MW	440	C	SD-9
Total: Existing Steam Electric Power Plant Capacity		655		

B. Proposed Steam Electric Power Plants

Aberdeen	Aberdeen 2, NWPS (retired)	-5 (11/76)	C,G	SD-2
Aberdeen	Aberdeen 3, NWPS (retired)	-8 (11/78)	C,G	SD-2
Mitchell	Mitchell 2, NWPS (retired)	-5 (11/76)	C,G	SD-3
Mitchell	Mitchell 3, NWPS (retired)	-8 (11/78)	C,G	SD-3

Location	Plant - Company	Cap., Mw	Fuel	Code
Mobridge	Mobridge 2, MDU (retired)	-9 (9/77)	C	SD-6
Sioux Falls	Lawrence 1-3, NSPC (retired)	-49(12/77)	C,G	SD-7

Total: Proposed Steam Electric Power Plants . . . . . --84

Total: Existing and Proposed Steam Electric Power Capacity 571

C. Coal Gasification Plants

Rapid City	Continental Oil Co. CO_2 Acceptor Process Plus Methanation	Pilot Plant 52 Tons of lignite / day	SD-8
Sioux Falls	Northern States Power Company Entrained Bed (Pressurized)	Pilot Plant Low BTU Gas Design '75-'76	SD-9

D. Nuclear Power Plants - None

State: South Dakota

A. Other Existing Power Generating Capacity

Location	Plant-Company	System	CAP.,MW	Fuel	Code
Armour	Armour 1-3, NWPS	Diesel	4	O	SDO-1
Chamberlain	Chamberlain 1-4, NWPS	Diesel	7	O	SDO-2
Clark	Clark, NWPS	Diesel	3	O	SDO-3
Faulkton	Faulkton, NWPS	Diesel	3	O	SDO-4
Highmore	Highmore 1-2, NWPS	Diesel	2	O	SDO-5
Huron	Mobile Unit, NWPS	Diesel	1	O	SDO-6
Redfield	Redfield 1-3, NWPS	Diesel	4	O	SDO-7
Webster	Webster 1-2, NWPS	Diesel	3	O	SDO-8
Woonsocket	Woonsocket, NWPS	Diesel	1	O	SDO-9
Yankton	Yankton New 1-3, NWPS	Diesel	11	O	SDO-10
Yankton	Yankton Old, NWPS	Diesel	7	O	SDO-11
Huron	Huron, NWPS	Gas Turbine	12	G	SDO-12
Mobridge	Mobridge 1-2, MDU	Diesel	2	O	SDO-13
Rapid City	Ben French Diesels 1-5, BHPL	Diesel	10	O	SDO-14
Salem	Salem 1-3, NSPC	Diesel	2	O	SDO-15
Big Bend	Big Bend 1-8, USBR[1]	Hydro	485	--	SDO-16
Fort Randall	Fort Randall 1-8, USBR[1]	Hydro	340	--	SDO-17

State: South Dakota (cont'd)

A. Other Existing Power Generating Capacity (cont'd)

Location	Plant-Company	System	CAP.,MW	Fuel	Code
Gavins Point	Gavins Point 1-3, USBR[1]	Hydro	102	--	SDO-18
Oahe	Oahe 1-7, USBR[1]	Hydro	684	--	SDO-19
Total: Other Existing Power Generating Capacity			1683		

B. Other Proposed Power Generating Capacity

Aberdeen	Aberdeen GT, NWPS	Gas Turbine	25 (5/1/78)	G	SDO-20
Gayville	Clay County 1-2, BEPC	Com. Turbine	120 (7/1/78)	O	SDO-21
Rapid City	Ben French CT1, BHPL	Com. Turbine	30 (11/76)	---	SDO-22
Rapid City	Ben French CT2, BHPL	Com. Turbine	40 (10/77)	---	SDO-22
Total: Other Proposed Generating Capacity			215		
Total: Other Existing and Proposed Generating Capacity			1898		

1 Upper Missouri Region

TABLE 14

State: Utah

A. Existing Steam Electric Power Plants

Location	Plant-Company	CAP., MW	Fuel	Code
Castle Gate	Carbon 1-2, UPLC	171	C	U-1
Cedar City	Cal PAC Util. Co., UPLC	7	C	U-2
Salt Lake	Jordan 3, UPLC	24	O	U-3
Salt Lake	Gadsby 1, UPLC	66	G,O	U-4
Salt Lake	Gadsby 2-3, UPLC	180	C,O,G	U-4
Orem	Hale 1-2, UPLC	62	C,G	U-5
Huntington	Huntington 2, UPLC	415	C	U-6
Provo	Provo City 1-4, USUC	14	G,C	U-7
Total: Existing Steam Electric Power Plants		939		

B. Proposed Steam Electric Power Plants

Huntington	Huntington Canyon 1, UPLC	415 (6/77)	C	U-8
Castle Dale	North Emery 1, UPLC	430 (6/78)	C	U-9
Castle Dale	North Emery.2, UPLC	430 (4/80)	C	U-9
Factory Butte	IPP 1, ICPA	750 (1982)	C	U-10
Factory Butte	IPP 2, ICPA	750 (1983)	C	U-10
Factory Butte	IPP 3, ICPA	750 (1984)	C	U-10
Factory Butte	IPP 4, ICPA	750 (1985)	C	U-10

State: Utah (cont'd)

B. Proposed Steam Electric Power Plants (cont'd)

Location	Plant - Company	CAP.,MW	Fuel	Code
Garfield/Escalante	Garfield 1, UPLC	500 (1982)	C	U-11
Garfield/Escalante	Garfield 2, UPLC	500 (1983)	C	U-11
Garfield/Escalante	Garfield 3, UPLC	500 (1984)	C	U-11
Garfield/Escalante	Garfield 4, UPLC	500 (1985)	C	U-11
St. George	Warner Valley 1, NEVP 25%, LDWP 50%, St George 25%	250 (7/81)	C	U-12
St George	Warner Valley 2, NEVP 25%, LDWP 50%, St George 25%	250 (7/82)	C	U-12

Total: Proposed Steam Electric Power Plant Capacity 6775*

Total: Existing and Proposed Steam Electric Power Plant Capacity 7714*

C. Coal Gasification Plants - None

D. Nuclear Plants - None

* Note - Captive power plants at Kennecott Copper Corp. (175 MW) and United States Steel Corp. (50 MW) are not included in the tables or totals

State: Utah

A. Other Existing Power Generating Capacity

Location	Plant-Company	System	CAP.,MW	Fuel	Code
Logan	Logan City 2-6, USUC	Diesel	4	G,O	UO-1
Bountiful	Bountiful City 1-9, USUC	Diesel	8	G,O	UO-2
Murray	Murray City 2-6, USUC	Diesel	7	G,O	UO-3
Boulder	Boulder 1-3, USUC	Hydro	3	---	UO-4
Dutch John	Flaming Gorge 1-3, USUC	Hydro	129	---	UO-5
Provo River	Olmsted 1-4, UPLC	Hydro	9	---	UO-6
Weber River	Riverdale 1-2, UPLC	Hydro	4	---	UO-7
Beaver River	Upper Beaver 1-2, UPLC	Hydro	2	---	UO-8
Weber River	Weber, UPLC	Hydro	3	----	UO-9
Ogden	Little Mountain, UPLC	Com. Turbine	14	G,O	UO-10
Ogden River	Pioneer 1-2, UPLC	Hydro	5	---	UO-11
Misc. Gen. in Utah	30 Units	Hydro	13	---	UO-12

Total: Other Existing Power Generating Capacity 201

B. Other Proposed Power Generation Capacity

Near Thistle	Syar, USUC	Hydro	8 (1/81)	---	UO-13
Near Thistle	Dyne, USUC	Hydro	33 (1/81)	---	UO-14
Near Thistle	Sixth Water 1-2, USUC	Hydro	90 (1/81)	---	UO-15

Total: Other Proposed Generating Capacity 131

Total: Other Existing and Proposed Generating Capacity 332

TABLE 15

State: Wyoming

A. Existing Steam Electric Power Plants

Location	Plant - Company	CAP.,MW	Fuel	Code
Wyodak	Neil Simpson 1,3-5, BHPL	23	C	W-1
Osage	Osage, BHPL	31	C	W-2
Rock Springs	Jim Bridger 1-2, PPLC 50%, IPC 50%	1000	C	W-3
Glenrock	Dave Johnston 1-4, PPLC	750	C,O,G	W-4
Green River	Trona, PPLC	15	G,O	W-5
Sheridan	Acme - Montana-Dakota Util. Co.	8	C	W-6
Kemmerer	Naughton 1-3, UPLC	710	C	W-7
Lusk	Lusk, USLM	1	O	W-8

Total: Existing Steam Electric Power Plant Capacity 2538

B. Proposed Steam Electric Power Plants

Wyodak	Wyodak 1, PPLC 90%, BHPL 10%	330 (5/78)	C	W-9
Wyodak	Wyodak 2, BHPL (132 MW share)	NS* (5/83)	C	W-9
Kemmerer	Naughton 4, UPLC	400 (4/82)	C	W-10
Kemmerer	Naughton 5, UPLC	400 (4/84)	C	W-10
Rock Springs	Jim Bridger 3, PPLC, IPC	500 (10/76)	C	W-11
Rock Springs	Jim Bridger 4, PPLC, IPC	500 (12/79)	C	W-11
Wheatland	Laramie River 1,Basin Elec 42%, Tri-State 24%, Missouri Basin Muni 17%, Lincoln Elec. 13%, Heartland Cons. 3%, WY Muni Pwr Agencies 1%	500 (1/80)	C	W-12

*NS - Total Plant Size Not Specified

State: Wyoming (cont'd)

B. Proposed Steam Electric Power Plants (cont'd)

Location	Plant - Company	CAP., MW	Fuel	Code
Wheatland	Laramie River 2, Basin Elec. 42%, Tri-State 24%, Missouri Basin Muni 17%, Lincoln Elec. 13%, Heartland Cons. 3%, WY Muni Pwr Agencies 1%	500 (1981)	C	W-12
Wheatland	Laramie River 3, Basin Elec. 42%, Tri-State 24% Missouri Basin Muni 17%, Lincoln Elec. 13%, Heartland Cons. 3%, WY Muni Pwr Agencies 1%	500 (7/83)	C	W-12

Total: Proposed Steam Electric Power Plant Capacity . . . . . 3630 *

Total: Existing and Proposed Steam Electric Power Plant Capacity. 6168

C. Coal Gasification Plants

Bill	Peabody - Panhandle Eastern (1978-1980)	270 MM SCFD	C	W-13

D. Nuclear Plants - None

* Note - value does not include any estimate for Wyodak 2

State: Wyoming

A. Other Existing Power Generating Capacity

Location	Plant-Company	System	CAP.,MW	Fuel	Code
Cheyenne	Cheyenne Diesel 1-5, PSC	Diesel	10	O	WO-1
Cheyenne	Corlett 1, PSC	Diesel	3	O	WO-2
Yellowstone Park[1]	Lake, MPC	Diesel	3	O	WO-3
Osage	Osage Diesel, BHPL	Diesel	1	O	WO-4
Thermopolis	Boysen 1-2, USLM	Hydro	15	---	WO-5
Alcova	Alcova 1-2, USLM	Hydro	36	---	WO-6
Kemmerer	Fontenelle, USBC	Hydro	11	----	WO-7
Guernsey	Guernsey 1-2, USLM	Hydro	5	---	WO-8
Cody	Heart Mountain, USLM	Hydro	5	---	WO-9
Sinclair	Kortes 1-3, USLM	Hydro	36	---	WO-10
Alcova	Fremont Canyon 1-2, USLM	Hydro	48	---	WO-11
Glendo	Glendo 1-2, USLM	Hydro	24	---	WO-12
Sinclair	Seminoe 1-3, USLM	Hydro	32	---	WO-13
Cody	Shoshone 1-3, USLM	Hydro	6	---	WO-14

Total: Other Existing Power Generating Capacity 235

State: Wyoming (cont'd)

B. Other Proposed Power Generating Capacity

Location	Plant-Company	System	CAP.,MW	Fuel	Code
Sinclair	Seminoe, USLM (Increase Existing Capacity)	Hydro	12 (6/77)	---	MO-15

Total: Other Proposed Generating Capacity 12

Total: Other Existing and Proposed Generating Capacity. 247

1 Available in summer only - Operated by USBR Region VI